

INFORMATION
ONLY

**ROCKY FLATS ENVIRONMENTAL
TECHNOLOGY SITE**

**EMD OPERATING
PROCEDURES MANUAL
VOL I: FIELD OPERATIONS**

Manual No.: 5-21000-OPS-FO
New Manual No.: 4-11000-ER-OPS-FO
Procedure No.: Table of Contents, Rev 79
Page: 1 of 4
Effective Date: 12/22/94
Organization: Environmental Management

THIS IS ONE VOLUME OF A SIX VOLUME SET WHICH INCLUDES:

**VOLUME I: FIELD OPERATIONS (FO)
VOLUME II: GROUNDWATER (GW)
VOLUME III: GEOTECHNICAL (GT)
VOLUME IV: SURFACE WATER (SW)
VOLUME V: ECOLOGY (EE)
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94-DMR-001021	Section FO.03 Text Addition	2	05/26/94
94-DMR-001010	LIMITED SCOPE - Section FO.03 Text Modification	2	06/01/94
94-DMR-001224	Equipment Decontamination Location Adjustment	2	07/15/94
FO.04	Heavy Equipment Decontamination	2	05/12/92
94-DMR-001009	LIMITED SCOPE - Section FO.04 Text Modification	2	06/01/94
FO.05	Handling of Purge and Development Water	2	05/12/92
94-DMR-000278	Groundwater Monitoring Modifications	2	02/25/94
FO.06	Handling of Personal Protective Equipment	2	05/12/92
FO.07	Handling of Decontamination Water and Wash Water	2	05/12/92
94-DMR-001175	LIMITED SCOPE - Decontamination Water Disposal Location Changes	2	06/20/94
FO.08	Handling of Drilling Fluids and Cuttings	2	05/12/92
94-DMR-001650	Procedural Clarifications	2	09/27/94

ADMINISTRATIVE

DOCUMENT CLASSIFICATION REVIEW WAIVER
PER R.B. HOFFMAN, CLASSIFICATION OFFICE
JUNE 11, 1991

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93-DMR-000677	DMR	2	11/01/93
94-DMR-000244	Drying Agent Modification	2	03/14/94
94-DMR-000558	Form Modification	2	04/15/94
94-DMR-001649	Deletion of Text Addressed in FO.08	2	09/27/94
FO.11	Field Communications	2	05/12/92
FO.12	Decontamination Facility Operations	2	05/12/92
•94-DMR-002244	Change of Decontamination Site for Field Equipment	2	12/22/94
FO.13	Containerization, Preserving, Handling and Shipping of Soil and Water Samples	2	05/12/92
93-DMR-000530	Section FO.13 Modification	2	11/04/93
93-DMR-000667	Section FO.13 Modification	2	11/20/93
94-DMR-000143	Composite Sampling Clarification	2	02/11/94
94-DMR-001670	New Statement of Work	2	09/15/94
FO.14	4-B29-ER-OPS-FO.14 - Field Data Management	3	09/09/94
FO.15	Photoionization Detectors (PIDs) and Flame Ionization Detectors (FIDs)	2	05/12/92
FO.16	Field Radiological Measurements	2	05/12/92
FO.18	Environmental Sample Radioactivity Content Screening	1	05/12/92
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FO. 23	4-F99-OPS-FO.23 - Management of Soil and Sediment Investigative Derived Materials (IDM)	0	01/11/94
94-DMR-000137	Training Requirements Clarification	0	01/28/94
94-DMR-000148	Section FO.23 Modifications	0	02/09/94
94-DMR-001108	Buried Instrumentation and Existing Soil	0	06/14/94
94-DMR-001350	Various Text Additions and Deletions Regarding Drums and Use of SOP FO.29	0	08/16/94
FO.25	4-B11-ER-OPS-FO.25 - Shipment of Radioactive Materials Samples	0	12/01/93
FO.27	4-BO1-ER-OPS-FO.27 - Collection of Floor/Equipment Hot Water Rinsate Samples	0	07/26/93
FO.29	4-H46-ENV-OPS-FO.29 - Disposition of Soil and Sediment Investigation-Derived Materials	0	06/24/94
94-DMR-001226	Allowance of Procedural Use for Waste Piles	0	07/15/94
94-DMR-001741	Permission of Use of Computer-Generated Forms and Other Minor Corrections	0	10/07/94
FO.30	4-I11-ER-OPS-FO.30 - Environmental Restoration Program Division Equipment Operation	0	10/07/94
FO.31	4-I49-ENV-OPS-FO.31 - Groundwater Recovery/Storage System - Normal Operations OU1, Bldg 891	0	11/23/94
FO.32	4-I50-ENV-OPS-FO.32 - Treated Effluent Discharge OU1, Bldg 891	0	04/13/94
•FO.33	4-I51-ENV-OPS-FO.33 - Treated Effluent Recirculation OU1, Bldg 891	0	12/22/94
FO.34	4-I52-ENV-OPS-FO.34 - Ion Exchange System - Normal Operations OU1, Bldg 891	0	11/23/94
FO.35	4-I53-ENV-OPS-FO.35 - Ultraviolet/Hydrogen Peroxide Oxidation System - Normal Operations OU1, Bldg 891	0	11/15/94

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FO.37	4-I55-ENV-OPS-FO.37 - Neutralization Tank - Normal Operations OU1, Bldg 891	0	11/23/94
FO.38	4-I56-ENV-OPS-FO.38 - Bulk Chemical Handling, Transfer, and Storage, OU1, Bldg 891	0	12/02/94
FO.39	4-I57-ENV-OPS-FO.39 - Calibration, Operation, and Maintenance of Monitoring and Fluid Handling Equipment OU1, Bldg 891	0	12/02/94
FO.43	4-I61-ENV-OPS-FO.43 - Filter Press Operation and Cleaning OU2, Field Treatability Unit	0	12/16/94

DOCUMENT MODIFICATION REQUEST (DMR)

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Refer to 1-A01-PPG-001 for Processing Instructions.
Print or Type All Information (Except Signatures).

1. Date 11/15/94			25. DMR No. <i>94-DMR-002244</i>		
Existing Document Number/Revision 5-21000-OPS-FO.12			3. New Document Number or Document Number if it is to be changed with this Revision NA		
4. Originator's Name/Phone/Pager/Location Annette Schmiechen/3191/4484/T891B			5. Document Title Decontamination Facility Operations		
6. Document Type <input checked="" type="checkbox"/> Procedure <input type="checkbox"/> Other		7. Document Modification Type (Check only one) <input type="checkbox"/> New <input type="checkbox"/> Revision <input type="checkbox"/> Intent Change <input checked="" type="checkbox"/> Nonintent Change <input type="checkbox"/> Editorial Correction <input type="checkbox"/> Cancellation			
8. Item	9. Page	10. Step	11. Proposed Modifications		
1	1		Add new subsection to the Table of Contents: 5.3.4 Operating Mobile Decontamination High Pressure Steam Cleaner Equipment		
2	2		Add new subsection to the Table of Contents: 6.3.3 Operations of the High Pressure Steam Cleaner		
3	11	5.3.4	Text to read as attached.		
4	15A	6.3.3	Text to read as attached.		
12. Justification (Reason for Modification, EJO #, TP #, etc.) The drilling and coring equipment that is used in the field is currently required to be decontaminated at the Decontamination Pad. Field Decontamination of coring equipment and non-movable facilities will save time and reduce the contamination risks associated with transporting the equipment.					
If modification is for a new procedure or a revision, list concurring disciplines in Block 13, and enter N/A in Blocks 14 and 15. If modification is for any type of change or a cancellation, organizations are listed in Block 13, then Concuror prints, and signs in Block 14, and dates in Block 15.					
13. Organization		14. Print, Sign (if applicable)			15. Date (if applicable)
QS		Steve Luker <i>[Signature]</i>			11-28-94
SME		Annette Schmiechen <i>[Signature]</i>			11-29-94
<i>No training required.</i>					
16. Originator's Supervisor (print/sign/date) Maria C. Broussard <i>[Signature]</i> 11-16-94					
Assigned SME/Phone/Pager/Location Annette Schmiechen/3191/4484/T891B		18. Cost Center 0248	19. Charge Number 986513	20. Requested Completion Date 12/22/94	21. Effective Date 12-22-94
22. Accelerated Review? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		23. ORC Review NA			
24. Responsible Manager (print/sign/date) Maria C. Broussard <i>[Signature]</i> 11-16-94					

DECONTAMINATION FACILITY OPERATIONS

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Category 2

Environmental Management
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TITLE:
DECONTAMINATION FACILITY
OPERATIONS

Approved By:

Signature on file (J. Evans) 5/12/92
(Name of Approver) (Date)

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5.3.3 The Drum Transfer Area

The drum transfer area is the point at which subcontractors transfer colored drums containing environmental materials suspected of containing radioactive and/or hazardous substances to EG&G representatives. Transfers of filled drums will normally occur when Waste Operations notifies EM personnel that storage space is available. Partially filled environmental materials drums will be stored at a temporary staging area at the drum transfer area until they are retrieved for complete filling. When full, drums will be placed at the designated drum transfer point.

5.3.4 The Mobile Decontamination High Pressure Steam Cleaner

Pressurized steam is to be used onsite to steam clean equipment such as:

- Split spoon sampling equipment pieces
- Drill stems
- Other small luggable equipment pieces
- Non-movable facilities

This method is to be used only when access is available to a self-contained mobile station consisting of:

- Steam/pressure generating unit
- Cleaning station that will contain all materials generated
- Source of clean supply water to the generator unit
- Used water collection system consisting of a drain in the bottom of the wash station leading to a collection tank. The tank is to be emptied at the decon pad when full or after the liquids are analyzed in accordance with the Field Sampling Plan for the Main and Protected Area Decontamination Facilities.

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- Goose neck trailer for portable decon unit and clean water supply.
- Vacuum or pump system to remove liquids from collection system.

6.0 PROCEDURES

6.1 INTRODUCTION

Effective decontamination procedures are required to minimize the potential for cross-contamination, offsite contaminant migration, and personnel exposure from improperly decontaminated equipment. Heavy equipment and environmental materials containers may become contaminated in either of the two following scenarios: (1) when used in a work area characterized as potentially contaminated such as an Individual Hazardous Substance Site (IHSS) or (2) when used in a work area characterized as not potentially contaminated but where field monitoring conducted during field activities indicates the possible presence of contamination. Because contamination is not always easily discernible, it will be assumed that equipment used in one of the two preceding scenarios has been contaminated and will, therefore, require decontamination.

Procedures established in this SOP are not applicable for heavy equipment used in a work area characterized as not potentially contaminated where no verified positive detections were encountered during field monitoring. However, heavy equipment used in these work areas may be washed at the MDF. Form FO.4A, Heavy Equipment Decontamination/Wash Checklist and Record, Sections I, II, and III, will be completed for heavy equipment decontaminated or washed.

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6.3.3 Operations of the High Pressure Steam Cleaner

- Scrape gross contamination from the equipment into an IDM drum before cleaning the equipment.
- Complete the appropriate radiological and organic surveys prior to decontamination.
- Place the equipment inside the contained wash area.
- Ensure that none of the equipment to be washed extends out of the contained area.
- Clean the equipment thoroughly.
- Ensure that all free water has drained from the equipment before removing from the wash area.
- Perform post-decontamination radiological and organic surveys if pre-decontamination surveys are above unrestricted release levels in accordance with EMRG 3.02.